

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark OfficeAddress: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

| SERIAL NUMBER | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|---------------|-------------|----------------------|--------------------------|
| 07/683,549 | 04/10/91 | NELSON | LT-5 REISSUE EXAMINER |

MARK D. ROWLAND
FISH & NEAVE
875 THIRD AVENUE
NEW YORK, NY 10022-6250

RECEIVED

OCT 25 1991

FISH & NEAVE - PATENT DEPT.
REFERRED TO
NOTED BY *[Signature]*

| ART UNIT | PAPER NUMBER |
|-------------|--------------|
| 2102 | 4 |
| DATE MAILED | 10/23/91 |

☒ This application has been examined
 ☐ Responsive to communication filed on _____
 ☐ This action is made final.

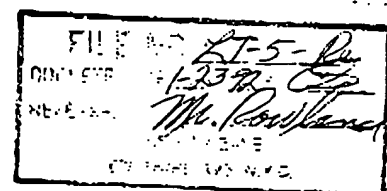
A shortened statutory period for response to this action is set to expire 3(three) month(s), _____ days from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-84 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☒ Claims 1-55 and 61 are allowed.
4. ☒ Claims 56-80 and 82-84 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable, ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____ has (have) been ☐ approved by the examiner, ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed on _____, has been ☐ approved, ☐ disapproved (see explanation).
12. ☐ Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other



EXAMINER'S ACTION

PTOL-326 (Rev. 9-89)

BEST AVAILABLE COPY

Serial No. 683,549

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Art Unit 212

1. Two of the references cited on PTO-1449 by the applicant have not been considered because dates for the references were not provided.
2. Claims 56-80 and 82-84 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 56 and 70-80, line 13, the phrase "adapted to supply" is rejected as being functional and lacks structural support. The examiner suggests -- for applying --.

In claim 82, lines 34 and 35, the phrase "when the current sense signal compares in a predetermined manner to the error signal" is unclear.

In claim 83, line 2, the phrase "equals or exceeds" is vague and indefinite because the alternative is used. The examiner suggests -- is at least equal to --.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Saleh patent is cited as being of interest.

4. Claims 1-55 and 81 are allowable over the prior art of record.
5. Claims 56, 70-80 and 82 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112.
6. Claims 57-69, 83 and 84 would be allowable if rewritten to

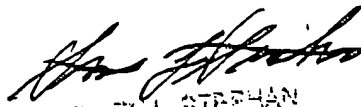
Serial No. 683,549

-3-

Art Unit 212

overcome the rejection under 35 U.S.C. § 112 and to include all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication should be directed to Kristine Peckman at telephone number (703) 308-0640.


STEVEN L. STEPHAN
SUPERVISORY PATENT EXAMINER
ART UNIT 212

Peckman/ss
September 25, 1991

PTO FORM 348
(REV. 5-90)U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

ATTACHMENT TO PAPER NUMBER

APPLICATION NUMBER

4
683549**NOTICE OF DRAFTSMAN'S PATENT DRAWING REVIEW****THE PTO DRAFTSMEN REVIEW ALL ORIGINALLY FILED DRAWINGS REGARDLESS
OF WHETHER THEY WERE DESIGNATED AS INFORMAL OR FORMAL.**The drawings filed 410191A. ☐ are approved.B. ☒ are objected to under 37 CFR 1.84 for the reason(s) checked below. The examiner will require submission of new, corrected drawings at the appropriate time. Corrected drawings must be submitted according to the instructions listed on the back of this Notice.

1. Paper and ink. 37 CFR 1.84(a)

☐ Sheet(s) _____ Poor.

2. Size of Sheet and Margins. 37 CFR 1.84(b)

Acceptable Paper Sizes and Margins

| Margin | Paper Size | | |
|--------|--------------------|--------------------|-------------------------------|
| | 8 1/2 by 14 inches | 8 1/2 by 13 inches | DIN size A4 21 by 29.7 cm. |
| Top | 2 inches | 1 inch | 2.5 cm. |
| Left | 1/4 inch | 1/4 inch | 2.5 cm. |
| Right | 1/4 inch | 1/4 inch | 1.5 cm. |
| Bottom | 1/4 inch | 1/4 inch | 1.0 cm. |

☐ Proper Size Paper Required.
All Sheets Must be Same Size.
Sheet(s) _____☐ Proper Margins Required.
Sheet(s) _____
☐ TOP ☐ RIGHT
☐ LEFT ☐ BOTTOM

3. Character of Lines. 37 CFR 1.84(c)

☐ Lines Pale or Rough and Blurred.
Fig(s) _____☐ Solid Black Shading Not Allowed.
Fig(s) _____

4. Hatching and Shading. 37 CFR 1.84(d)

☐ Shade Lines are Required.
Fig(s) _____☐ Criss-Cross Hatching Not Allowed.
Fig(s) _____☐ Double Line Hatching Not Allowed.
Fig(s) _____☐ Parts in Section Must be Hatched.
Fig(s) _____

5. Reference Characters. 37 CFR 1.84(f)

☐ Reference Characters Poor or Incorrectly-Sized.
Fig(s) _____☐ Reference Characters Placed Incorrectly.
Fig(s) _____

6. Views. 37 CFR 1.84(i) & (j)

☐ Figures Must be Numbered Properly.
_____☐ Figures Must Not be Connected.
Fig(s) _____7. ☐ Photographs Not Approved.8. ☒ Other. Remove "U.S. PATENT" from

Telephone inquiries concerning this review should be directed to the Chief Draftsman at telephone number (703) 557-6404.

Sheet No. & patent No. Fig. 1-8.

AD

Reviewing Draftsman

4/30/91
Date

TO SEPARATE, BUILD UP AND BOTTOM EDGES, SNAP-APART AND DISCARD CARBON

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| FORM PTO-892 (REV. 3-78) | | U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | | SERIAL NO. 603549 | | GROUP/ART UNIT 212 | | ATTACHMENT TO PAPER NUMBER 4 | | | | | |
| NOTICE OF REFERENCES CITED | | | | APPLICANT(S) Nelson | | | | | | | | | |
| U.S. PATENT DOCUMENTS | | | | | | | | | | | | | |
| * | | DOCUMENT NO. | | | | | DATE | NAME | CLASS | SUB-CLASS | FILING DATE IF APPROPRIATE | | |
| | A | 4 | 3 | 2 | 6 | 2 | 4 | 5 | 4/20/02 | 363 | 21X | | |
| | B | | | | | | | | | | | | |
| | C | | | | | | | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | | | | | | | |
| * | | DOCUMENT NO. | | | | | DATE | COUNTRY | NAME | CLASS | SUB-CLASS | PERTINENT SHTS. DWG. | PP. SPEC. |
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| | Q | | | | | | | | | | | | |
| OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.) | | | | | | | | | | | | | |
| | R | | | | | | | | | | | | |
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sheet 1 of 6

| | | |
|---|---|---------------------------------|
| FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) | ATTY. DOCKET NO. LT-5 reissue | SERIAL NO. 07/683,549 |
| | APPLICANT Carl T. Nelson | |
| | FILED DATE 4/10/91 | GROUP 212 |

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILED DATE IF APPROPRIATE |
|---------------------|-----------------|--------|---------------|-------|----------|------------------------------|
| KP | 4 1 4 6 8 3 2 | 3/1979 | McConnell | 363 | 19X | |
| KP | 4 2 0 9 8 2 6 | 6/1980 | Priegnitz | 363 | 21 | |
| KP | 4 2 5 3 1 3 7 | 2/1981 | Rao | 363 | 21 | |
| KP | 4 4 2 5 6 1 2 | 1/1984 | Bahler et al. | 363 | 21 | |
| KP | 4 6 4 1 2 2 9 | 2/1987 | Easter | 363 | 21 | |
| KP | 4 6 5 2 8 0 8 | 3/1987 | Mostyn et al. | 363 | 21X | |
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FOREIGN PATENT DOCUMENTS

| | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION | |
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|----|--|---|
| | | Data Sheet, "Switching DC To DC Microconverters - LSH-6300 Series," date unknown |
| KP | | Data Sheet, Unitrode UC 1846 Current Mode PWM Controller integrated circuit, 12/83. |
| | | Documents relating to the Linear Technology Corporation LT-1070 integrated circuit. |

EXAMINER

Kristine Peckman

DATE CONSIDERED

9-23-91

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

